

WHAT IS CLAIMED IS:

1. An automotive alternator comprising:
a rotor fixed to a shaft rotatably supported in a case; and
a stator provided with:
a cylindrical stator core supported in said case so as to envelop
said rotor, slots extending axially being formed in said stator core
so as to line up in a circumferential direction at a ratio of two per
phase per pole; and
a stator winding constructed by installing a conductor wire coated
with an electrical insulator in said stator core,
a relationship between a radial dimension (d) of said conductor wire
coated with said electrical insulator and a circumferential width dimension (L)
of said slots being $2d < L$.
2. The automotive alternator according to Claim 1 wherein a cross
section of said slots taken along a radial direction has a rectangular shape.
3. The automotive alternator according to Claim 1 wherein a width
dimension (s) of an opening portion of said slots is 1.5 or more times a radial
dimension (d) of said conductor wire.
4. The automotive alternator according to Claim 1 wherein an inner
circumferential corner portion of a radially-wide flange portion on a tip portion
of a tooth between said slots has a curved shape.
5. The automotive alternator according to Claim 1 wherein an
electrically-insulating resin layer is formed on an inner wall surface of said
slots.

6. The automotive alternator according to Claim 1 wherein first and second three-phase alternating-current windings are constructed by installing a plurality of said conductor wires in said slots, a predetermined number of said conductor wires being bundled together.

7. The automotive alternator according to Claim 1 wherein a deforming cylindrical plug is disposed inside an opening portion of said slots.

8. The automotive alternator according to Claim 1 wherein a deforming hollow cylindrical plug is disposed inside an opening portion of said slots.

9. The automotive alternator according to Claim 1 wherein a deformable plug is disposed inside an opening portion of said slots.

10. The automotive alternator according to Claim 9 wherein a cut portion is formed in said plug.

11. The automotive alternator according to Claim 4 wherein shapes of first and second circumferential end portions of said flange portion are asymmetrical.

12. The automotive alternator according to Claim 7 wherein a varnish portion is disposed on an inner circumferential side of said plug.